

GLOSSARY

Terms Used in the EIR

The following definitions apply only to the terms used in this Environmental Impact Report.

ACTIVE DIVERSION: A surface water diversion that has been operated at least one out of the last five years.

ADAPTIVE MANAGEMENT: The process of adaptive management is defined with three basic elements: (i) an initial operational decision or program design made in the face of uncertainty about the impacts of the action; (ii) monitoring and research to determine impacts of actions; and (iii) changes to operations or program in response to new information.

AGGRADATION: The geologic process in which streambeds, floodplains, and the bottoms of other water bodies are raised in elevation by the deposition of material eroded and transported from other areas. It is the opposite of degradation.

AGRICULTURAL OPERATOR: Any natural person or any partnership, corporation, limited liability company, trust, or other type of association or any public agency, as defined in CEQA *Guidelines*, § 15379, who diverts water from a stream by means of an active diversion in the Program Area for an agricultural purpose, or is involved in an agricultural operation on property in the Program Area through which or adjacent to which a stream flows.

ALEVIN: Stage in the life cycle of salmon following emergence from the egg stage, characterized by the presence of a yolk sac attached to the body.

ALLUVIUM: A general term for all deposits resulting directly or indirectly from the sediment transport of streams, thus including the sediments laid down in riverbeds, floodplains, lakes, fans, and estuaries. *ALLUVIAL* adj.

ANADROMOUS: Pertaining to fish that spend part of their life cycle in the ocean and return to freshwater streams to spawn, such as salmon, steelhead, and American shad.

ANADROMY: Noun form of the term *anadromous* (see above), often used to refer to the special reach of anadromous fish in a watershed (e.g., fish barriers may represent the upstream extent of anadromy).

AQUIFER: A geological formation, group of formations, or portion of a formation capable of yielding significant quantities of groundwater to wells or springs.

BANKFULL DISCHARGE: The discharge corresponding to the stage at which the floodplain of a particular stream reach begins to be flooded; the point at which bank overflow begins. Also *Bankfull Flow*.

BEDLOAD: Sediment too large to be suspended that moves along or near the streambed by sliding, rolling, or hopping.

BED MATERIAL LOAD: Sediment found in the streambed.

BEST MANAGEMENT PRACTICES (BMPs): Methods, measures, or practices designed to reduce adverse impacts, usually applied as a system of practices rather than a single practice.

BIODIVERSITY/BIOLOGICAL DIVERSITY: The ensemble and the interactions of natural genetic, species, and ecological diversity in a given place at a given time.

BOULDER: Stream substrate particle larger than 10 inches (256 millimeters) in diameter.

BROOD YEAR: Population of coho salmon that perpetuates itself by spawning in three-year intervals. Due to the rigid three-year life cycle of coho salmon, any given stream may provide habitat for three temporally separated populations, or brood years, that are largely reproductively independent from each other (with the exception of precocious males and females, called jacks and jills, respectively, that engage in spawning after two years and thus provide gene flow between brood years). When the spawning season spans portions of more than one year, as it does for coho salmon, the brood year is identified by the year in which spawning began. For example, offspring of coho salmon that spawned in 1996-1997 are identified as “brood year 1996.” Because most coho salmon of a brood year return to spawn after one summer of freshwater life and two summers of ocean life, a brood year tends to form a distinct genetic lineage.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA): California law requiring the disclosure of environmental effects of proposed projects before discretionary approval can be issued by a public or local agency (California Public Resources Code, Division 13, § 21000 - § 21177 and California code of Regulations, Title 14, Chapter 3, § 15000 – § 15387).

CDFG SPECIES OF SPECIAL CONCERN (SSC): Animals not listed under the California Endangered Species Act, but which nonetheless 1) are declining at a rate that could result in listing, or 2) historically occurred in low numbers and known threats to their persistence currently exist. SSC share one or more of the following criteria:

1. They occur in small, isolated populations or in fragmented habitat, and are threatened by further isolation and population reduction.

2. They show marked population declines. Population estimates are unavailable for the vast majority of taxa. Species that show a marked population decline, yet are still abundant, do not meet the Special Concern definition, whereas marked population decline in uncommon or rare species is an inclusion criterion.
3. They depend on a habitat that has shown substantial historical or recent declines in size. This criterion infers the population viability of a species based on trends in the habitats upon which it specializes. Coastal wetlands, particularly in the urbanized San Francisco Bay and south-coastal areas, alluvial fan sage scrub and coastal sage scrub in the southern coastal basins, and arid scrub in the San Joaquin Valley, are examples of California habitats that have seen dramatic reductions in size in recent history. Species that specialize in these habitats generally meet the criteria for threatened or endangered status or special concern status.
4. They occur only in or adjacent to an area where habitat is being converted to land uses incompatible with the animal's survival.
5. They have few California records, or which historically occurred here but for which there are no recent records.
6. They occur largely on public lands, but where current management practices are inconsistent with the animal's persistence.

This designation is intended to result in special consideration for these animals by CDFG, land managers, consulting biologists, and others, and is intended to focus attention on the species to help avert the need for costly listing under CESA and/or the federal Endangered Species Act, and cumbersome recovery efforts that might ultimately be required. This designation also is intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species, and focus research and management attention on them.

CDFG's Wildlife Branch, Nongame Wildlife Program is responsible for producing and updating SSC publications for mammals, birds, reptiles and amphibians. The Fisheries Branch is responsible for updates to the Fish Species of Special Concern document. Each report includes a methods, results and discussion section followed by species accounts which may include data on population and range trend, population size, threats, ecological considerations, management recommendations, taxonomic remarks, and life history information relevant to status. A range or distribution map accompanies each account.

Some CDFG species of special concern meet the definition of "endangered, rare, or threatened" in CEQA *Guidelines*, section 15380 defined below. For the purpose of this document these species are referred to as "special status species."

CEQA GUIDELINES: The regulations that implement CEQA (California Code of Regulations, title 14, § 15000 *et seq.*).

CHANNEL: A natural or artificial waterway of perceptible extent that periodically or continuously contains moving water. It has a definite bed and banks, which serve to confine the water.

COBBLE: Stream substrate particles between 2.5 and 10 inches (64 and 256 millimeters) in diameter.

COLLUVIUM: A general term for loose deposits of soil and rock moved by gravity, e.g., talus. *COLLUVIAL* Adj.

COVERED ACTIVITY: An activity the Program covers.

DISCHARGE: Volume of water flowing in a given stream at a given place and within a given period of time, usually expressed as cubic meters per second (m³/sec), or cubic feet per second (cfs). Often symbolized as Q.

ENDANGERED, RARE, OR THREATENED SPECIES: As defined in CEQA *Guidelines*, § 15380 (California Code of Regulations, title 14, § 15380),

(a) "Species" . . . means a species or subspecies of animal or plant or a variety of plant.

(b) A species of animal or plant is:

(1) "Endangered" when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors; or

(2) "Rare" when either:

(A) Although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or

(B) The species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered "threatened" as that term is used in the Federal Endangered Species Act.

(c) A species of animal or plant shall be presumed to be endangered, rare or threatened, as it is listed in:

(1) California Code of Regulations, Title 14, § 670.2 or 670.5, or

(2) Title 50, Code of Federal Regulations Section 17.11 or 17.12 pursuant to the Federal Endangered Species Act as rare, threatened, or endangered.

(d) A species not included in any listing identified in subdivision (c) shall nevertheless be considered to be endangered, rare or threatened, if the species can be shown to meet the criteria in subdivision (b).

(e) This definition shall not include any species of the Class Insecta which is a pest whose protection under the provisions of CEQA would present an overwhelming and overriding risk to man as determined by:

(1) The Director of Food and Agriculture with regard to economic pests; or

(2) The Director of Health Services with regard to health risks.

EROSION: The group of natural processes, including weathering, dissolution, abrasion, corrosion, and transportation, by which material is worn away from the earth's surface. *EROSIONAL* adj.

ESCAPEMENT: In reference to Pacific salmon, the number of fish of a population that return to a stream to spawn (spawning escapement).

EVOLUTIONARILY SIGNIFICANT UNIT (ESU): A population or group of populations that is considered distinct, and hence a species, for purposes of the federal Endangered Species Act. An ESU must be reproductively isolated from other populations of the same species and must represent an important component in the evolutionary legacy of the species.

FEASIBLE: Capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors (CEQA *Statutes*, § 21061.1)

FINE SEDIMENT: The fine-grained particles in stream banks and substrate. The particles are defined by diameter, varying downward from 0.24 inch (6 millimeters). Also *Fines*.

FISH SCREEN: A porous barrier placed across the inlet or outlet of a lake or stream or across the opening of a water diversion structure in a stream to prevent the passage of fish.

FLOOD: Any flow that exceeds the bankfull capacity of a stream or channel and flows out of the floodplain; greater than bankfull discharge.

FLOODPLAIN: The area bordering a stream over which water spreads when the stream overflows its banks at flood stages.

FLOW: 1) The movement of a stream of water and/or other mobile substances from place to place; 2) the movement of water, and the moving water itself; or 3) the volume of water passing a given point per unit of time. Also *Discharge*.

FLUVIAL: Relating to or produced by a river or the action of a river. Situated in or near a river or stream.

FRY: Stage in the life cycle of salmon following the “alevin” stage (see above), characterized by the loss of the yolk sac and beginning of feeding on external prey.

GRADIENT: The slope of a streambed or hillside. For streams, gradient is quantified as the vertical distance of descent over the horizontal distance the stream travels.

GRAVEL: Substrate particle size between 0.08 and 2.5 inches (2 and 64 millimeters) in diameter.

GROUNDWATER: Water below the land surface.

GULLY: A deep ditch or channel cut in the earth by running water after a prolonged downpour.

INCIDENTAL TAKE PERMIT (ITP): A permit issued by CDFG that authorizes the take (see below) of a species listed as threatened, endangered, or candidate under the California Endangered Species Act (CESA) incidental to a lawful activity when specified criteria are met. For the purposes of this document “ITP” will typically be referring to the permit CDFG will issue to SVRCD in accordance with Fish and Game Code, § 2081(b) and (c) to provide take authorization for the watershed-wide permitting Program.

INTERMITTENT STREAM: A stream in contact with the groundwater table that flows only at certain times of the year when the groundwater table is high and/or when it receives water from springs or from some surface source such as melting snow in mountainous areas. It ceases to flow above the streambed when losses from evaporation or seepage exceed the available stream flow. Seasonal.

LARGE WOODY DEBRIS (LWD): Large, relatively stable woody material usually having a diameter greater than 30 cm (12 inches) and a length greater than 2 m (6 feet) that intrudes into the stream channel.

MAINSTEM: The principal, largest, or dominating stream or channel of any given area or drainage system.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM: Federal requirement under the Clean Water Act (CWA) that any discharge of a non-point source of pollution into waters of the United States be in conformance with any established water quality management plan developed under the CWA.

PERENNIAL STREAM: A stream that flows continuously throughout the year.

PROGRAM: The Program is the Shasta River Watershed-wide Permitting Program

PROGRAM AREA: The Program Area is the Shasta River watershed, including the Shasta River and its tributaries, in Siskiyou County.

POPULATION: A group of individuals of the same species that live in the same place at the same time and exhibit some level of reproductive isolation from other such groups. In some contexts, a randomly mating group of individuals that is reproductively isolated from other groups. A population may consist of a single isolated run or more than one connected run. Synonymous with “stock” in this document.

REDD: Nest of a salmon, usually a depression within the gravel substrate of a stream, into which the female deposits her eggs.

RIFFLE: A shallow rapids where the water flows swiftly over completely or partially submerged obstructions to produce surface agitation. Substrate is usually composed of gravel, pebble, and cobble-sized particles.

RILL: An erosion channel that typically forms where rainfall and surface runoff is concentrated on slopes. If the channel is larger than one square foot in size, it is called a gully.

RIPARIAN: Pertaining to anything connected with or immediately adjacent to the banks of a stream or other body of water.

SCOUR: The localized removal of material from the streambed by flowing water. This is the opposite of fill.

SEDIMENT: Fragmented material that originates from weathering of rocks and decomposition of organic material that is transported by, suspended in, and eventually deposited by water or air, or is accumulated in beds by other natural phenomena.

SMOLT: Stage in the life cycle of salmon following the “parr” stage, characterized by hormonal and other physiological changes that prepare the fish for its seaward migration and life in salt water, the loss of parr marks, and appearance of a silvery color.

SPECIAL-STATUS SPECIES For the purpose of this document it is any species that meets the definition of “endangered, rare, or threatened” in CEQA *Guidelines*, § 15380 defined above. Some CDFG species of special concern meet this definition. For the purpose of this document these species are referred to as “special status species.”

STAGE: The elevation of a water surface above or below an established datum or reference.

STRANDING: As defined in the ITP, “stranding” is a situation in which coho salmon are in a location with poor aquatic habitat conditions due to a reduction in flow from which they cannot escape.

STREAM: A body of water that flows at least periodically or intermittently through a bed or channel having banks and supports, or could support, fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation. “Stream” includes creeks and rivers.

STREAMBANK: The banks of a stream are the elevations of land that confine the waters of a stream when the waters rise to the highest point at which they remain confined to a definite course and channel. The top of bank boundary will contain the active channel, active floodplain, and the inner banks associated with these features. Bank applies to both that portion of the channel adjacent to the water and the lateral or horizontal distance necessary to protect the physical form and function of the bank.

STREAM REACH: A section of a stream between two points.

SUB-PERMIT: A permit based on the ITP issued by CDFG to an Agricultural Operator or DWR watermaster authorizing the take of coho salmon incidental to a Covered Activity.

SUB-PERMITTEE: An Agricultural Operator or DWR watermaster with a sub-permit issued by CDFG. All sub-permits will require the sub-permittee to comply with the specific avoidance and minimization measures included in the ITP and sub-permits for the Covered Activity the sub-permit covers.

SUBSTRATE: Particulate material comprising the bottom of a body of water, such as mud, silt, gravel, or rock.

SUB-WATERSHED: One of the smaller watersheds that combine to form a larger watershed.

SUSPENDED SEDIMENT: Material (usually clay, silt, and sand) carried for a considerable period of time in suspension without deposition on the bed of the body of water.

TAKE: As defined by Fish and Game Code section 86 “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.”

TRIBUTARY: A stream feeding, joining, or flowing into a larger stream. Also called a feeder stream or side stream.

TURBIDITY: Reduced clarity of a liquid due to the presence of suspended or dissolved matter.

VADOSE ZONE: Sub-surface zone between the ground surface and the groundwater level (water table) within the unsaturated zone. Soil voids in this zone contain air and water.

WATERSHED: The topographic region drained by or contributing water to a stream, river system, or lake. The total land area draining to any point in a stream, as measured on a map, aerial photograph or other horizontal plane. Also called catchment area, watershed, and basin.

WETLAND: Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include, but are not limited to, swamps, marshes, bogs, and similar areas or lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water.

Acronyms Used in the EIR

5C Program:	Five Counties Salmonid Conservation Program
AB:	Assembly Bill
amsl:	Above mean sea level
AF:	Acre-feet
ASFMRA:	American Society of Farm Managers and Rural Appraisers
AST:	Aboveground storage tanks
BMPs:	Best management practices
Cal/OSHA:	California Occupational Safety and Health Administration
Cal-EPA:	California Environmental Protection Agency
Caltrans:	California Department of Transportation
CAO:	Corrective Action Order
CAP:	Clean Air Plan
CARB:	California Air Resources Board
CCAA:	California Clean Air Act
CCR:	California Code of Regulations
CDF:	California Department of Forestry and Fire Protection
CDFG:	California Department of Fish and Game
CDO:	Cease and Desist Order
CEQA:	California Environmental Quality Act
CERCLA:	Comprehensive Environmental Response, Compensation, and Liability Act
CESA:	California Endangered Species Act
CFR:	Code of Federal Regulations
CFS:	Cubic feet per second
CFSP:	California Forest Stewardship Program
CHP:	California Highway Patrol
CNDDDB:	California Natural Diversity Data Base
CNPS:	California Native Plant Society
Corps:	U.S. Army Corps of Engineers
CRP:	Community-based Restoration Program
CUP:	Conditional Use Permit
CUPA:	Certified Unified Program Agency

CWA:	Clean Water Act
CWHR:	California Wildlife Habitat Relationships
dBA:	Decibels (measured on the “A” scale of frequency)
Draft EIR:	Draft Environmental Impact Report
DIRT:	Direct Inventory of Roads and Treatments
DOT:	U.S. Department of Transportation
DPS:	Distinct Population Segment
DPW:	Siskiyou County Department of Public Works
DTSC:	California Department of Toxic Substances Control
DWR:	California Department of Water Resources
EDD:	California Employment Development Department
EIR:	Environmental Impact Report
EIS:	Environmental Impact Statement
ESA:	Environmental Science Associates
ESA:	Endangered Species Act
ESU:	Evolutionarily Significant Unit
Fed/OSHA:	Federal Occupational Safety and Health Administration
FEIR:	Final Environmental Impact Report
FEMA:	Federal Emergency Management Administration
FEMAT:	Forest Ecosystem Management Assessment Team
FEPA:	Federal Environmental Protection Act
FEW:	Fresh Emergent Wetlands
FGSC	Fruit Growers Supply Company
FMMP:	Farmland Mapping and Monitoring Program
FRGP:	Fisheries Restoration Grant Program
HCP:	Habitat Conservation Plan
HWCL:	Hazardous Waste Control Law
ITP:	Incidental Take Permit
KMC:	Klamath Mixed Conifer
KNF:	Klamath National Forest
JITW:	Jobs in the Woods
LWD:	Large Woody Debris
LTED:	Long term economic distress
LUST:	Leaking underground storage tank

MLTC:	Master List of Terms and Conditions
MMRP:	Mitigation Monitoring and Reporting Program
MOU:	Memorandum of Understanding
MWAT:	Moving weekly average temperature
NAAQS:	National Ambient Air Quality Standards
NE/CHRIS:	Northeast Center of the California Historical Resources Information System, California State University, Chico
NECSBDC:	Northeastern California Small Business Development Center
NEPA:	National Environmental Policy Act
NESHAPs:	National Emission Standards for Hazardous Air Pollutants
NGVD:	National Geodetic Vertical Datum
NIOSH:	National Institute of Occupational Safety and Health
NMFS:	National Marine Fisheries Service (also known as “NOAA Fisheries”)
NOAA:	National Oceanic and Atmospheric Administration
NOP:	Notice of Preparation
NPDES:	National Pollutant Discharge Elimination System
NRCS:	Natural Resources Conservation Service
NWI:	National Wetlands Index
NWFP:	Northwest Forest Plan
NCRWQCB:	North Coast Regional Water Quality Control Board
OSHA:	Occupational Safety and Health Administration
PM10:	Particulate matter smaller than 10 microns
PPN:	Ponderosa pine
PPT:	Parts per thousand
RAP:	Roads Analysis Process
RCRA:	Resource Conservation and Recovery Act
REL:	NIOSH Recommended Exposure Limit
RM:	River mile
RWQCB:	Regional Water Quality Control Board
SAA:	Streambed Alteration Agreement
SAAQS:	State Ambient Air Quality Standards
SCEDC:	Siskiyou County Economic Development Center
SLC:	State Lands Commission
SONCC:	Southern Oregon/Northern California Coast

SQRCD:	Siskiyou Resource Conservation District
SRWC:	Shasta River Watershed Council
SSC:	Species of Special Concern
SVAP:	Shasta Valley Area Plan
SVID:	Shasta Valley Irrigation District
SVRCD:	Shasta Valley Resource Conservation District
SWPPP:	Storm Water Pollution Prevention Plan
SWRCB:	State Water Resources Control Board
TAC:	Toxic Air Contaminant
TMDL:	Total maximum daily load
UCCE:	University of California Cooperative Extension
UBC:	Uniform Building Code
USBR:	United States Bureau of Reclamation
USEPA:	United States Environmental Protection Agency
USFS:	United States Forest Service
USFWS:	United States Fish and Wildlife Service
USGS:	United States Geological Survey
WY:	Water year
WHR:	Wildlife habitat relationships